

**BELKIN®**

# Battery Backup with Surge Protection



**User Manual**

F6H400ukUSB F6H600ukUSB

## Introduction

Thank you for purchasing the Battery Backup with Surge Protection (the unit). Each year, frequent natural and man-made power disturbances disrupt the power supplied to your home or office electronics. These power problems place your hardware, software, and data at risk. Belkin Battery Backups provide an uninterruptible power supply (UPS) with advanced features as the industry-leading solution.

## Package Contents

You should have received the following:

- 1 – **Battery Backup unit**
- 1 – **Installation CD containing Belkin Automatic Power Management Software (the Belkin APM Software)**
- 1 – **USB Cable**
- 1- **CD user manual**

## System Requirements

The Battery Backup can be used without the software with any computer using up to a 17" CRT or LCD monitor. You do not have to have the software installed to utilize the battery-backup sockets.

To fully utilize the Battery Backup and its software, your computer must be running one of the following operating systems: Windows XP / 2003 / 2000 / ME / 98 / NT 4.0 (SP6) or Linux, and have a USB port.

## Overview | Features and Functions

Before installation, please inspect the unit upon receipt. Make sure that nothing is damaged.

Your Battery Backup features three LED indicators. Each is marked by a power icon; please familiarize yourself with this chart, as it will assist you in the use of your Battery Backup.

| Indicator                 | Condition         | Meaning   |
|---------------------------|-------------------|---|
| On-Line                   | Solid Green       | The unit is operating and supplying the utility power to connect loads.   |
| On-Battery<br>Low Battery | * Flashing Yellow | When the unit is operating from battery:<br>1. The light blinks every 5 seconds if the unit is operating on battery mode.<br>2. The light illuminates rapidly every 1 second if the unit's battery is very nearly depleted. |
| UPS Fault                 | Solid Yellow      | The LED lights steadily and the buzzer beeps if a fault is found.   |

## Overview | Important Safety Instructions

### Please save this User Manual!

It contains important operating instructions and warranty information pertaining to your Battery Backup.

Please save or recycle the packaging materials!

The unit's packaging was designed with great care to provide protection during shipment and delivery. These materials are invaluable if you ever have to return the unit for service. Damage sustained during transit is not covered under the warranty.

## Overview | Top Panel

### 1. Battery-Backup Outlets

Data-sensitive equipment such as a computer, monitor and external drive should be plugged into these sockets. Battery power is automatically provided in case of a power outage. Power (AC or battery) is not supplied to these sockets when the unit is switched off. (Do not plug surge protectors or power strips into the battery-backup sockets.)

Caution: Never connect a laser printer or scanner to the backup sockets along with other computer equipment. To do so might overload the unit.

### 2. The "On/Off" button has 2 functions:

1. Turns on the unit. Press button for at least two seconds. The green light illuminates.
2. Cold start function. If the battery is charged, the unit will work without being plugged into an socket. Press and hold the key for at least two seconds to turn on the unit.

## Overview | Side Panel

### 1. AC Input Power Cord (See #1 on Fig. 1)

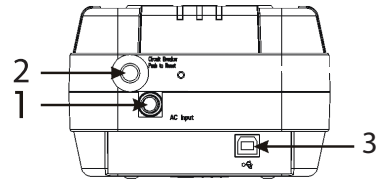
Provides power to your Battery Backup.

### 2. AC Breaker (Circuit Breaker; see #2 on Fig. 1)

Should a power overload occur, the circuit breaker triggers the unit to turn off AC power. To restore power, press the "circuit breaker" button to reset, then press the "Power" button.

### 3. USB Communication Port (See #3 on Fig. 1)

The unit features a USB communication port. Installation of the cable and the Bulldog Plus Software, which allows the unit to connect to your computer, is optional. The unit will provide backup power whether or not the cable and software are installed; however, without them you will be unable to utilize the data management product features.



## Overview | Alarms

### Backup (Slow Alarm)

When the unit is in "backup" mode (running on battery), the YELLOW LED illuminates and the unit emits an audible alarm. The alarm stops when the unit returns to normal online operation.

### Low Battery (Rapid Alarm)

In "backup" mode, when the battery energy runs low, the unit beeps rapidly until it either shuts down from a depleted battery or returns to normal online operation.

### Fault (Continuous Alarm)

When the unit fails, it emits an audible alarm continuously to warn of a fault condition. Disconnect the equipment prior to checking it.

## Overview | Storage

### Storage Conditions

Store the unit covered and upright in a cool, dry location with its battery fully charged. Before storing, charge the unit for at least twelve (12) hours.

### Extended Storage

During extended storage in environments where the ambient temperature is -15 en +30 °C, charge the unit's battery every six (6) months. During extended storage in environments where the ambient temperature is +30 en 45 °C, charge the unit's battery every three (3) months.

Note:



## Overview | Technical Specifications

|                           |   |  |   |
|---------------------------|---|--|---|
| Model                     |   | F6H400ukUSB<br>F6H400exUSB<br>F6H400evUSB  | F6H600ukUSB<br>F6H600exUSB<br>F6H600evUSB |
| Capacity                  | VA/W  | 400VA/200W   | 600VA/300W                                |
| Input                     | Voltage   | 220/230/240VAC   |   |
|                           | Frequency   | 50/60Hz  |   |
|                           | Max input current                                       | 5A   |   |
|                           | Phase   | Single   |   |
| Output<br>(inverter Mode) | Voltage Range   | 220/230/240VAC+10%   |   |
|                           | Frequency   | 50Hz or 60Hz+1Hz   |   |
|                           | Max output current                                      | 5A   |   |
|                           | Waveform  | Modified Sinwave   |   |
| Transfer Time             | Typical   | 2-6ms  |   |
| Battery                   | Battery Type  | 12V4.5Ahx1   | 12V5Ahx1                                  |
|                           | Backup Time at a PC load with monitor<br>(Typical 100W) | 6-11 Minutes   | 10-15 Minutes                             |
|                           | Recharging Time   | 16 hours max<br>(recharge up to 90% capacity)  |   |
| Display                   | LED   | Power on, Backup, Fault  |   |
| Audible Alarm             | Battery Mode  | Sounding every 5 seconds   |   |
|                           | Low Battery   | Sounding every second  |   |
|                           | Overload  | Sounding every 0.5 second  |   |
|                           | Fault   | Continuously Sounding  |   |
| Protection                | Full Protection   | Overload, Overcharge, Modem/Phone Line Surge Protection and Short Circuit Protection |   |
| Physical                  | Dimension (DxWxH)                                       |  | 352mm*134mm*86mm                          |
|                           | Net Weight  |  | 2.9KG                                     |
|                           | Shucko  | France   | UK  |
| Environment               | Operation Temperature                                   |  | 0-40oC                                    |
|                           | Operation Humidity                                      |  | 0-90%                                     |

All specifications are subject to change without prior notice.

## Installation

**Note:** Before installation, please inspect the unit. Make sure that nothing inside the package is damaged.



### A. Connect to AC Utility Power

Plug in the AC cord to a wall socket. Please make sure there are no devices plugged into the unit. Check to see whether the "SITE WIRING FAULT" indicator is lit. If it is lit, please have the utility wiring inspected by an electrician.



### B. Charge the Battery

For best results, charge the battery for twelve hours prior to initial use. The unit charges its battery whenever it is connected to the utility power.

### C. Turn on the unit

Turn on your unit by depressing the "On/Off" button for approximately two seconds. You will see the green indicator light come on.



### D. Plug in Power Devices

Plug your devices into the AC sockets on the unit. To use the unit as a master on/off switch, make sure all of the loads are switched on.

Caution: Never connect a laser printer or scanner to the backup sockets along with other computer equipment. A laser printer or scanner draws significantly more power when in use than when idle. This may overload the Battery Backup.

### E Connect the USB Communication Port

A USB port is provided to relay the signal to support Windows. To fully utilize the Belkin Automatic Power Management Software, you will need to connect the unit to your computer. Connect the USB cable to the unit, then connect the other end to your computer's USB port.

### F. Install Belkin APM Software

#### a) Platforms supported by Belkin APM Software.

The following operating system (OS) is arranged by the alphabetical order:

- AIX 4.3.3, 5.1, 5.2
- Compaq Tru64 Alpha
- FreeBSD x86
- HP-UX 11.x, 11i.x
- Linux
- Mac PPC OSX
- SCO UnixWare 7.1.1, 7.1.3, SCO Unix 8.0, and SCO OpenServer 5.0.6, 5.0.7
- SGI Irix 6.5.x
- Solaris / Sparc 2.6, 7, 8, 9 , and Solaris / Intel 2.6, 7, 8, 9
- Windows XP / 2003 / 2000 / ME / 98 / NT 4.0 (SP6).

#### b) Belkin Automatic Power Management Software Installation Steps. (For most common operating systems)

For Windows platform

- Run setup.exe in the \Windows\Disk1\InstData\VM\ directory of your CD to start the installation program.
- Read the information provided, then click Next.
- Review the installation options that you have selected. If the options are correct, then click "Install" to begin the installation.
- When the installation program is completed, click Done.

For Mac OS X platform

- Run setup.app in the \MacOSX\Disk1\InstData\ directory of your CD to start the installation program.
- Read the information provided, then click Next.
- Review the installation options that you have selected. If the options are correct, then click "Install" to begin the installation.
- When the installation program is completed, click Done.

## Trouble shooting

| PROBLEM  | POSSIBLE CAUSE   | SOLUTION  |
|--|--|---|
| <b>Power LED is not lit</b><br><br><b>unit will not power on</b> | "On/Off" button not pushed or pushed less than 2 seconds | Press the "On/Off" button more than 2 seconds           |
|  | Battery voltage is too low                               | Recharge the unit for 24 hours                          |
|  | UPS fault  | Contact Belkin Technical Support at techsupp@belkin.com |
| <b>unit always on battery mode</b>                               | Power cord loose   | Re-plug the power cord                                  |
|  | AC breaker is tripped                                    | Reset the breaker                                       |
|  | Power disturbances have occurred                         | Normal operations                                       |
| <b>Backup time is very short</b>                                 | Battery is not fully charged                             | Recharge the unit for 24 hours                          |
|  | unit is overloaded                                       | Remove unnecessary power loads (devices)                |
|  | UPS fault  | Contact Belkin Technical Support at techsupp@belkin.com |



## Important safety instructions

Please read the following information carefully and save this manual for future reference. Disregard of these safety notes may endanger life or health, as well as the function of the equipment and the safety of your data.

- Do not connect this product to another battery backup, power board, surge protector, extension cord or double adapter.
- Risk of Electric Shock. Heatsinks are live. Disconnect unit before servicing.
- Risk of Electric Shock. This unit receives power from more than one source.

Disconnection of AC sources and the DC source is required to de-energise this unit before servicing.

- Risk of Electric Shock. Hazardous live parts inside this unit are energised from the battery supply even when the power cord is connected.
- Risk of Electric Shock. Do not remove cover. No user serviceable parts inside.

Refer servicing to qualified service personnel.

- The sum of the leakage current of the UPS and the connected equipment should not exceed 3.5mA.
- Do not dispose of batteries in a fire as they may explode.
- Do not open or damage the battery. Released electrolyte is harmful to the skin and eyes. It may be toxic.
- Do not let liquids and/or other foreign bodies into the UPS.
- A battery can present a risk of electric shock and high short circuit current.

The following precaution should be observed when working on batteries:

- Remove watches, rings or other metal objects from the handles
- Use tools with insulated handles
- Wear rubber gloves and boots
- Do not lay tools or metal parts on top of the batteries
- Disconnect charging source prior to connecting or disconnecting batteries terminal.

- Servicing of batteries should be performed or supervised by personnel knowledgeable about batteries and required precautions.
- When replacing batteries, use the same type and number of batteries or batter packs.
- The mains socket that supplies the UPS shall be installed near the UPS and shall be easily accessible . When the UPS power cord must be connected to an earthed mains socket for safety reasons.
- The maximum ambient temperature rating is 40 C°



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